10/729,207

L	Hits	Search Text	DB	Time stamp		
Number						
1	5	cyclometallated adj complex	USPAT; US-PGPUB;	2004/08/23 11:34		
2	0	(cyclometallated adj complex) and organozinc	EPO; JPO USPAT;	2004/08/23		
		organozine	US-PGPUB; EPO; JPO	11:35		

## 10/129,207

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FILE COVERS 1907 - 23 Aug 2004 VOL 141 ISS 9 FILE LAST UPDATED: 22 Aug 2004 (20040822/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s organometallic cyclometallated complex

41267 ORGANOMETALLIC

199 CYCLOMETALLATED

1151356 COMPLEX

L1 0 ORGANOMETALLIC CYCLOMETALLATED COMPLEX (ORGANOMETALLIC(W)CYCLOMETALLATED(W)COMPLEX)

=> s organometallic cyclometallated

41267 ORGANOMETALLIC

199 CYCLOMETALLATED

L2 0 ORGANOMETALLIC CYCLOMETALLATED (ORGANOMETALLIC (W) CYCLOMETALLATED)

=> s cyclometallated complex

199 CYCLOMETALLATED

1151356 COMPLEX

L3 20 CYCLOMETALLATED COMPLEX (CYCLOMETALLATED (W) COMPLEX)

=> s 13 and organozing

1330 ORGANOZINC

L4 0 L3 AND ORGANOZINC

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L3 ANSWER 1 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 2004:220632 CAPLUS

DN 140:261221

TI Methods for producing full-color organic electroluminescent devices in which substrates do not require surface treatment prior to deposition of electroluminescent material

IN Yu, Gang; Srdanov, Gordana; Stainer, Matthew

PA E.I. Du Pont De Nemours and Company, USA

SO PCT Int. Appl., 37 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

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PATENT NO.
                      KIND DATE
                                       APPLICATION NO.
                                                             DATE
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                                        PΙ
    WO 2004023574
                       A1 20040318 WO 2003-US27424
                                                             20030828
    WO 2004023574
                       C1
                            20040429
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM,
            PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN,
            TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG,
            KZ, MD, RU, TJ
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,
            CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC,
           NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
            GW, ML, MR, NE, SN, TD, TG
    US 2004094768
                             20040520
                       A1
                                        US 2003-643255
                                                              20030818
PRAI US 2002-408777P
                       Ρ
                             20020906
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AB Methods for producing organic electroluminescent (EL) devices are described which entail providing a substrate, depositing an anode layer onto the substrate, establishing a plurality of discreet wells on the substrate, where the wells are formed by circumscribing walls to form the wells, depositing a buffer layer onto the anode layer in each of the wells, depositing an un-patterned EL host polymer layer into each of the wells, depositing at least one patterned dopant layer in at least one of the wells without prior surface treatment of the walls of the well, and depositing a cathode layer. Methods for producing a full-color, subpixellated organic electroluminescent (EL) device are also discussed as

RE.CNT 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 2 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

are devices fabricated using the title methods.

- AN 2003:864440 CAPLUS
- DN 140:146249
- TI Reactions of N-(2-thienylmethylidene)-2-thienylmethylamine derivatives with diiron nonacarbonyl: characterization and structures of cyclometalated diiron complexes Fe2(CO)6(R-C4HS-CH2NCH2-C4H3S) and linear tetrairon clusters Fe4(CO)10(R-C4HS-CH:NCH2-C4H3S)2
- AU Tzeng, Yu-Fun; Wu, Chih-Yu; Hwang, Wen-Shu; Hung, Chen-Hsiung
- CS Department of Chemistry, National Dong Hwa University, Taichung, Taiwan
- SO Journal of Organometallic Chemistry (2003), 687(1), 16-26 CODEN: JORCAI; ISSN: 0022-328X
- PB Elsevier Science B.V.
- DT Journal
- LA English
- The reaction of N-(2-thienylmethylidene)-2-thienylmethylamine (1) withABFe2(CO)9 under mild conditions in anhydrous benzene yields the Fe carbonyl products 2, 3, and 4. Complex 2 is a cyclometalated complex Fe2(CO)6(R-C4HS-CH2NCH2-C4H3S), in which the organic ligand is  $(\mu-\eta 1:\eta 2-\text{thienyl }\beta-C, \alpha, \beta-C:C;$  $\eta 1\!:\!\eta 1\!-\!(N)\,)\!-\!coordinated$  to the diiron center. Complexes 3 and 4 are novel linear tetrairon complex isomers Fe4(CO)8( $\mu$ -CO)2(R-C4HS-CH:NCH2-C4H3S)2, in which the two organic ligands are  $(\mu-\eta 1-thienyl)$  $\beta$ -C:  $\eta$ 1-N; $\eta$ 2-thienyl $\alpha$ ,  $\beta$ -C:C: $\eta$ 2-C:N)coordinated to two diiron centers, resp. These complexes were well characterized spectrally. The mol. structures of 1a, 2a, 2b, 3a, and 3b were determined by x-ray diffraction. The linear arrangement of the four Fe atoms in the 66e clusters 3 and 4 is consistent with the closed valance MO (CVMO) theory. Complexes 3 and 4 may be viewed as consisting of a central  $\left( \frac{1}{2} \right)$ Fe2(CO)2( $\mu$ -CO)2 core to which two  $\eta$ 5-azaferracyclopentadieny

fragments are coordinated; hence 3 and 4 are isolobally-related analogs of [CpFe(CO)( $\mu$ -CO)]2. Thermal reaction of 3 or 4 in hexane, benzene, or

MeCN leads to the decomposition of the complex. No interconversion between isomers 3 and 4 was observed

RE.CNT 64 THERE ARE 64 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

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L3 ANSWER 3 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
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AN 2002:689236 CAPLUS

DN 138:106801

- TI The first crystal and molecular structure of a syn-acetato-bridged dinuclear **cyclometallated complex** [Pd{2,3,4- (MeO) 3C6HC(H):NCH2CH2OH} (μ-OAc)]2
- AU Fernandez, Alberto; Vazquez-Garcia, Digna; Fernandez, Jesus J.; Lopez-Torres, Margarita; Suarez, Antonio; Castro-Juiz, Samuel; Vila, Jose M.
- CS Departamento de Quimica Fundamental, Universidad de La Coruna, La Coruna, 15071, Spain
- SO European Journal of Inorganic Chemistry (2002), (9), 2389-2401 CODEN: EJICFO; ISSN: 1434-1948
- PB Wiley-VCH Verlag GmbH
- DT Journal
- LA English

RE.CNT 60

- OS CASREACT 138:106801
- AΒ Treatment of the Schiff base ligands 2,3,4-(MeO)3C6H2CH:NR (R = CH2CH2OH, 1, L1; Me, 17; Et, 18; Pr, 19; tBu, 20) with palladium(II) acetate in toluene gave the dinuclear cyclometalated complexes [Pd{2,3,4-(MeO) 3C6H(CH:NR) } ( $\mu$ -O2CMe) ]2 (R = CH2CH2OH, 2; Me, 21; Et, 22; Pr, 23; tBu, 24), with the ligand bonded to the palladium atom through the imine nitrogen and the C-6 carbon atoms. The 1H and 13C(1H) NMR spectra of the complexes showed the presence of the anti and syn isomers in solution The anti/syn ratio varies with the solvent and the nature of the imine nitrogen substituent R. Complex 24 with the bulky tBu group showed a 28:1 anti/syn ratio in chloroform while the less bulky substituted complexes showed lower ratios. The x-ray crystal structure of the syn isomer of complex 2 is described. Reaction of the acetato-bridged complex 2 with PPh3 gave the mononuclear complex [Pd(L1-kC6,kN)(OAc)(PPh3)] 4, in a bridge-splitting reaction. Reaction of 2 with one equiv of diphosphine dppm, dppp and dppb gave the dinuclear cyclometalated complexes [{Pd(L1- $\kappa$ C6, $\kappa$ N)(OAc)}2( $\mu$ -diphosphine)] 5, 6 and 7, resp. Treatment of 2 with an aqueous solution of sodium chloride gave the cyclometalated  $\mu$ -chloro complex [Pd(L1- $\kappa$ C6, $\kappa$ N)( $\mu$ -Cl)]2 (3). Treatment of 3 with PPh3 in acetone yielded the mononuclear complex  $[Pd(L1-\kappa C6,\kappa N)Cl(PPh3)]$  8, and reaction of 8 with silver triflate gave the cyclometalated complex [Pd(L1- $\kappa$ C6, $\kappa$ N, $\kappa$ O) (PPh3) ] [OTf] (9), with the palladium atom bonded to four different atoms C, N, O and P. Treatment of 3 by 1 equiv of dppp, dppb and dppf (P-P) gave the dinuclear complexes [ $\{Pd(L1-\kappa C6, \kappa N)C1\}2\{\mu-(P-P)\}$ ] 10, 11 and 12, resp., with  $\mu$ -diphosphine and terminal chloride ligands. However, reaction of 3 with the small bite-angle diphosphine dppm gave [{Pd(L1- $\kappa$ C6, $\kappa$ N)}2( $\mu$ -Cl)( $\mu$ -dppm)] 13, with a bridging chloride ligand. Reaction of 11 with silver triflate in acetone gave the new dinuclear complex [{Pd(L1- $\kappa$ C6,  $\kappa$ N,  $\kappa$ O)}2( $\mu$ -dppb)][OTf]2 14, with the Schiff base ligand as [C,N,O] tridentate. Reaction of 3 with the 2 equiv of dppe and silver perchlorate gave the mononuclear complex  $[Pd(L1-\kappa C6,\kappa N) (dppe)][ClO4]$  15 with chelating diphosphine. Treatment of 3 with Ph2PCH2CH2PPhCH2CH2PPh2 (triphos) in a 1:2 molar ratio, followed by sodium perchlorate, gave [Pd(L1- $\kappa$ C6, $\kappa$ N) (triphos- $\kappa$ P, $\kappa$ P', $\kappa$ P'')][ClO4] 16, in which the pentacoordinated palladium atom was bonded to the triphosphine through the three phosphorus atoms. The x-ray crystal structures of complexes 8, 9, 15 and 16 are also reported.

THERE ARE 60 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 4 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2001:417332 CAPLUS
- DN 135:53380
- TI Complexes of form L2MX as phosphorescent dopants for organic LEDs
- IN Thompson, Mark E.; Djurovich, Peter; Lamansky, Sergey; Murphy, Drew; Kwong, Raymond; Abdel-Razzaq, Feras; Forrest, Stephen R.; Baldo, Marc A.; Burrows, Paul E.
- PA Trustees of Princeton University, USA; University of Southern California
- SO PCT Int. Appl., 88 pp. CODEN: PIXXD2
- DT Patent
- LA English
- FAN.CNT 5

	PATENT NO.				KIND DA		DATE	DATE APPLICATION NO.					NO.	DATE				
ΡI	WO	2001041512			A1 20010607			WO 2000-US32511						20001129				
		W:	AE,	AG,	AL,	AM,	AT,	AU,	ΑZ,	BA,	BB,	ВG,	BR,	BY,	ΒZ,	CA,	CH,	CN,
			CR,	CU,	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GΕ,	GH,	GM,	HR,
			HU,	ID,	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,
			LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	MZ,	NO,	NZ,	PL,	PT,	RO,	RU,
			SD,	SE,	SG,	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	UZ,	VN,	YU,
			ZA,	ZW,	AM,	ΑZ,	BY,	KG,	ΚZ,	MD,	RU,	ТJ,	TM					
		RW:	GH,	GM,	ΚE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZW,	AT,	BE,	CH,	CY,
			DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	TR,	BF,
			ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	NE,	SN,	TD,	TG		
	EΡ	1252803					EP 2000-980863											
		R:	ΑT,	BE,	CH,	DE,	DK,	ES,	FR,	GB,	GR,	IT,	LI,	LU,	NL,	SE,	MC,	PT,
			ΙE,	SI,	LT,	LV,	FI,	RO,	MK,	CY,	AL,	TR						
	JР	JP 2003515897			Т2		20030507 JP 2001-541304						20001129					
PRAI		5 1999-452346				1999												
	WO	2000-	-US32	2511		M		2000	1129									
OS	MARPAT 135:53380																	

- Organic light-emitting devices are described in which an emitter layer AΒ comprises compds. (e.g., as dopants within a host) which are described by the general formula L2MX (L and X are inequivalent bidentate ligands; and M is a metal which forms octahedral complexes). Devices with emitter layers comprising phosphorescent compds. described by the general formula LL'L"M (L, L'., and L" = inequivalent bidentate ligands) and comprising L'''2M (L''' = a monoanionic bidentate ligand coordinated to M through an sp2 carbon and a heteroatom; and wherein the heteroatoms of the two L ligands are in a trans configuration) are also described. The preparation of L2MX by combining a bridged dimer described by the general formula  $L2M(\mu-C1)\,2ML2$  with a Bronsted acid XH to make an organometallic complex of formula LMX is also described. Synthetic options allow insertion of fluorescent mols. into a phosphorescent complex, ligands to fine tune the color of emission, and ligands to trap carriers. 3-Methoxy-2phenylpyridine.
- RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L3 ANSWER 5 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:249081 CAPLUS
- DN 132:347331
- TI Unidentate coordination of 2,2'-bipyridine and 1,10-phenanthroline in a cyclometallated rhodium(III) complex. Evidence from 1H and 13C NMR spectra
- AU Naganagowda, G. A.; Ramanathan, K. V.; Gayathri, V.; Gowda, N. M. Nanje
- CS Sophisticated Instruments Facility, Indian Institute of Science, Bangalore, 560 012, India
- SO Magnetic Resonance in Chemistry (2000), 38(4), 223-228 CODEN: MRCHEG; ISSN: 0749-1581

- PB John Wiley & Sons Ltd.
- DT Journal
- LA English
- AΒ The binuclear cyclometallated complex  $[RhCl(\mu-Cl)(bBz\bar{l}H2bz)]2$  [bBzlH2bzH = 1,3-bis(benzimidazolyl)benzene] undergoes a dichloro bridge cleavage reaction with 2,2'-bipyridine (bipy) or 1,10-phenanthroline (phen) in the presence of perchlorate to yield a mononuclear complex of the type RhCl(OClO3)(bBzlH2bz)(N-N) (N-N = bipy or phen) [Gayathri, V.; Leelamani, E.G.; Godwa, N.M.N.; Reddi, G.K.N. Polyhedron (1999) 18, 2351]. Surprisingly, the N-heterocycle, bipy or phen, is neither chelating nor bridging bidentate in the complex. Such a monodentate coordination of bipy or phen was detected using two-dimensional 1H-1H correlated and NOE expts. (DQF-COSY and ROESY), 1H-13C single- and multiple-bond correlated two-dimensional NMR expts. (PFG-HSQC and PFG-HMBC) and 1H,13C spin-lattice relaxation time measurements. The non-coordination of the pendant nitrogen of the heterocycle bipy or phen is evidenced by the observation of two sets of signals together with the presence of interligand NOEs only between the coordinated part of the heterocycle and the bisbenzimidazole as seen in the corresponding ROESY spectrum. Further, the 1H and 13C spin-lattice relaxation times show lower values for the nuclei in the coordinated part of the heterocycle, bipy or phen, than for the uncoordinated parts, supporting the fact that only one of the two nitrogens of the heterocycle has coordinated to the metal and thus behaves as monodentate ligand.
- RE.CNT 29 THERE ARE 29 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L3 ANSWER 6 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 2000:140358 CAPLUS
- DN 132:308473
- TI Photo-assisted formation of a chelating diphos ligand from PPh3 and a cyclometallated [P(C6H4)(C6H5)2]- ligand. Crystal structure of Pd $\{\eta 2-o-[P(C6H5)2]2(C6H4)\}$ Br2
- AU Estevan, Francisco; Garcia-Bernabe, Abel; Lahuerta, Pascual; Sanau, Mercedes; Ubeda, M. Angeles; Galan-Mascaros, Jose R.
- CS Departament de Quimica Inorganica, Universitat de Valencia, Burjassot, Valencia, E-46100, Spain
- SO Journal of Organometallic Chemistry (2000), 596(1-2), 248-251 CODEN: JORCAI; ISSN: 0022-328X
- PB Elsevier Science S.A.
- DT Journal
- LA English
- AB The cyclometalated Pd compound, BrPd(n2-C6H4PPh2-o)(PPh3) (1), in the solid state by action of light, evolves to give Br2Pd[n2-1,2-(Ph2P)2C6H4] (2), which was characterized by x-ray crystallog.. 2 Contains the diphosphine, o-(Ph2P)2C6H4, as chelated ligand that is formed by a couple reaction of the metalated ligand n2-(C6H4PPh2)- and the coordinated arylphosphine. A study by NMR spectroscopy confirms that the o-phenylene bridge in the diphosphine ligand in 2 comes from the metalated phosphine ligand in 1.
- RE.CNT 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT
- L3 ANSWER 7 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1999:718026 CAPLUS
- DN 132:64386
- TI X-ray Diffraction Studies of Group 9 Transition-Metal Complexes Containing an sp3 C-H Activated Functionalized Triphenylphosphine
- AU Sjoevall, Sven; Svensson, Per H.; Andersson, Carlaxel
- CS Inorganic Chemistry 1 Centre for Chemistry and Chemical Engineering, Lund University, Lund, S-221 00, Swed.
- SO Organometallics (1999), 18(25), 5412-5415

CODEN: ORGND7; ISSN: 0276-7333

PB American Chemical Society

DT Journal LA English

OS CASREACT 132:64386

GI

AB Treatment of the hemilabile tertiary phosphino amide o-Ph2PC6H4CH2N(Me)C(O)Et (DPPBA; 1) with the appropriate Rh(I) or Ir(I) precursor complex results in cyclometalation by oxidative addition of the benzylic C-H bond to the metal center. The solution structures of the two synthesized complexes [RhH(PPh3)2(DPPBA)][PF6] (I) and [IrH(1,5-COD)(DPPBA)][BF4] (II) were unambiguously identified by various NMR spectroscopic techniques. Also, single-crystal x-ray diffraction studies were performed for I (space group = P1.hivin., dc = 1.478, Z = 2) and II (space group = P1.hivin., dc = 1.669, Z = 2). These are the 1st crystal structures obtained with DPPBA as a ligand, giving final confirmation of the capability of 1 to tris chelate in Pt group metal complexes.

RE.CNT 37 THERE ARE 37 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L3 ANSWER 8 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN

AN 1999:591029 CAPLUS

DN 132:22719

TI Highly active PdII cyclometallated imine catalyst for the Suzuki reaction

AU Weissman, Haim; Milstein, David

CS Department of Organic Chemistry, The Weizmann Institute of Science, Rehovot, Israel

SO Chemical Communications (Cambridge) (1999), (18), 1901-1902 CODEN: CHCOFS; ISSN: 1359-7345

PB Royal Society of Chemistry

DT Journal

LA English

AB The cyclopalladated, phosphine-free imine complex [PdL(O2CCF3)]2 (1; HL = PhCMe:NiPr) is an excellent catalyst for the Suzuki cross-coupling, leading to >105 turnovers with nonactivated aryl bromides. The catalyst is air and thermally stable.

RE.CNT 21 THERE ARE 21 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L3 ANSWER 9 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1999:136095 CAPLUS

DN 130:267560

TI The synthesis and photophysical characterization of cyclometallated rhodium(III) and cobalt(III) complexes

- AU Dedeian, Kenneth
- CS Univ. of California, Santa Barbara, CA, USA
- SO (1998) 237 pp. Avail.: UMI, Order No. DA9839727 From: Diss. Abstr. Int., B 1999, 59(7), 3431
- DT Dissertation
- LA English
- AB Unavailable
- L3 ANSWER 10 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1997:298141 CAPLUS
- DN 126:343664
- TI Novel dinuclear cyclometallated complexes of palladium(II) derived from N, N-(2,5-dichloro) terephthalylidenebis(cyclohexylamine) via oxidative addition
- AU Vila, Jose M.; Gayoso, Miguel; Pereira, M. Teresa; Lopez, Margarita; Fernandez, Jesus J.; Fernandez, Alberto; Ortigueira, Juan M.
- CS Dep. Inorg. Chem., Univ. Santiago, Santiago Compostela, E-15706, Spain
- SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1997), 623(5), 844-848
  - CODEN: ZAACAB; ISSN: 0044-2313
- PB Barth
- DT Journal
- LA English/Spanish
- The oxidative addition of the bidentate Schiff base 1,4-(CyN:CH)2-2,5-Cl2C6H2 to tris(dibenzylideneacetone)dipalladium(0) gave the dicyclopalladated complex [cyclic] [(Cl)PdN(Cy):C(H)C6H2C(H):N(Cy)Pd(Cl)]n (1). Treatment of 1 with LiBr gave the analogous bromo derivative [(Br)PdN(Cy):C(H)C6H2C(H):N(Cy)Pd(Br)]n (2). Reaction of 1 or of 2 with tertiary phosphines in 1:2 or 1:4 molar ratios gave the dinuclear cyclometallated [(L)(X)PdN(Cy):C(H)C6H2C(H):N(Cy)Pd(X)(L)] (3-9), and non-cyclometallated complexes [(L)2(X)PdN(Cy):C(H)C6H2C(H):N(Cy)Pd(X)(L)2] (10-14) (X = Cl, Br; L = PPh3, PEtPh2, PEt2Ph, PMePh2, as appropriate), resp. Treatment of 1 or of 2 with thallium acetylacetonate gave the dinuclear cyclometallated complex [(MeCOCHCOMe)PdN(Cy):C(H)C6H2C(H):N(Cy)Pd(MeCOCHCOMe)].
- L3 ANSWER 11 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1996:688038 CAPLUS
- DN 126:53093
- TI C,N,N-Cyclometallated palladium(II) complexes: a step forward to luminescent metallomesogens
- AU Neve, Francesco; Ghedini, Mauro; Crispini, Alessandra
- CS Dip. Chim., Univ. Calabria, Arcavacata di Rende, I-87030, Italy
- SO Chemical Communications (Cambridge) (1996), (21), 2463-2464 CODEN: CHCOFS; ISSN: 1359-7345
- PB Royal Society of Chemistry
- DT Journal
- LA English
- AB Cyclopalladation of 4'-functionalized 6'-phenyl-2,2'-bipyridine ligands (HLn, n=1-3) leads to [PdLnCl] species as demonstrated by the crystal structure of [PdL1Cl]; thermotropic nematic mesomorphism is observed for HL3 and [PdL3Cl]; the latter is also photoluminescent at 77 K.
- L3 ANSWER 12 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1996:527069 CAPLUS
- DN 125:264443
- TI A luminescent iridium(III) cyclometallated complex immobilized in a polymeric matrix as a solid-state oxygen sensor
- AU Di Marco, Gaetano; Lanza, Maurizio; Pieruccini, Marco; Campagna, Sebastiano
- CS Ist. Tec. Spettroscopiche, Messina, I-98166, Italy
- SO Advanced Materials (Weinheim, Germany) (1996), 8(7), 576-580

CODEN: ADVMEW; ISSN: 0935-9648 PB DTJournal LΑ English The polymer-immobilized Ir complex [Ir(ppy)2(dpt-NH2)](PF6) (ppy = phenylpyridine, dpt-NH2 = 4-amino-3,5-di-2-pyridyl-4 H-1,2,4-triazole) was prepared and the photo- and electroluminescence properties with regard to its use as an O sensor were studied. The macromonomer poly(ethyleneglycol) Et ether methacrylate was polymerized (yielding amorphous pPEGMA) and used as the matrix. The dynamic modulus and internal friction of pPEGMA were measured. The response behavior of the luminescence output on cycling between N-saturated and O-saturated atmospheric was shown. No degradation of the system was observed over 3 mo. L3ANSWER 13 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN AN1995:722154 CAPLUS DN 123:256965 ΤI Structure of a C,N,N-cyclometallated palladium(II) complex of 2-amino-4-phenylamino-6-(2-pyridyl)-1,3,5-triazine, an  $\alpha$ -diimine ligand with donor-acceptor-donor hydrogen-bonding capability ΑU Chan, Chin-Wing; Mingos, Michael P.; White, Andrew J. P.; Williams, David J. CS Dep. Chem., Imp. Coll. Sci., Technol. Med., London, SW7 2AY, UK Journal of the Chemical Society, Dalton Transactions: Inorganic Chemistry SO (1995), (14), 2469-71CODEN: JCDTBI; ISSN: 0300-9246 Royal Society of Chemistry PBDTJournal LΑ English A new class of (2,4-diamino-1,3,5-triazinyl)pyridine ligand has been made AΒ and its cyclopalladation reaction with palladium(II) studied; the crystal structure of the C,N,N-cyclometallated complex reveals a rigid planar structure with donor-acceptor-donor hydrogen-bonding function on its surface. ANSWER 14 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN L3ΑN 1995:496293 CAPLUS DN 123:144192 Metal complexes of biologically important ligands: synthesis of amino TIacidato complexes of PdII containing a C,N-cyclometallated group as an ancillary ligand ΑU Navarro, R.; Garcia, J.; Urriolabeitia, E. P.; Cativiela, C.; Diaz-de-Villegas, M. D. CS Departamento de Quimica Inorganica, Instituto de Ciencia de Materiales de Aragon, Universidad de Zaragoza - CSIC, Zaragoza, 50009, Spain SO Journal of Organometallic Chemistry (1995), 490(1-2), 35-43 CODEN: JORCAI; ISSN: 0022-328X PΒ Elsevier DTJournal LΑ English OS CASREACT 123:144192 AΒ New amino acidato complexes of PdII of stoichiometry [Pd(C-N)(Aa)] (C-N=0)C, N-cyclometallated ligand, Aa = N, O-amino acidato ligand) have been obtained by reaction of [Pd(C-N)(acac)] (C-N = N, N-dimethylbenzylamine-C2, N (dmba) or N, N-dimethyl(S- $\alpha$ -phenylethyl)amine-C2, N (S-dmphea)) with glycine, chiral amino acids (alanine, phenylalanine and valine), and amino acid derivs. (N-acetylglycine and N-acetyl- $\alpha$ , $\beta$ dehydroalanine) in MeOH. The compds. are characterized by IR, 1H and 13C

NMR. The geometry of these complexes has been unambiguously determined by NOE

difference expts. and NOESY measurements.

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L3 ANSWER 15 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
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- AN 1994:323809 CAPLUS
- DN 120:323809
- TI Simple cycloplatination of triphenylphosphine
- AU Scheffknecht, Christoph; Rhomberg, Andrew; Mueller, Ernst P.; Peringer, Paul
- CS Institut fuer Anorganische und Analytische Chemie der Universitaet Innsbruck, Innrain 52a, Innsbruck, A-6020, Austria
- SO Journal of Organometallic Chemistry (1993), 463(1-2), 245-8 CODEN: JORCAI; ISSN: 0022-328X
- DT Journal
- LA English
- OS CASREACT 120:323809

GI

AB The reaction of [PtCl(PPh3)3]Cl with AgO3SCF3 in CHCl3/MeOH at ambient temperature gives cyclometallated complex I in quant. yield within a few minutes. The complex I has been characterized by 1H, 13C, 31P and 195Pt NMR spectroscopies. Complete 1H and 13C assignments have been made by use of various one- and two-dimensional NMR techniques.

- L3 ANSWER 16 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1994:8728 CAPLUS
- DN 120:8728
- TI Solvent effects in the reactions of 6-phenyl-2,2'-bipyridine with ruthenium(II)
- AU Constable, Edwin C.; Hannon, Michael J.
- CS Cambridge Centre for Molecular Recognition, University Chemical Laboratory, Lensfield Road, Cambridge, CB2 1EW, UK
- SO Inorganica Chimica Acta (1993), 211(1), 101-10 CODEN: ICHAA3; ISSN: 0020-1693
- DT Journal
- LA English
- OS CASREACT 120:8728
- The reaction of [Ru(tpy)Cl3] (tpy = 2,2':6',2''-terpyridyl) with the potentially cyclometalating ligand 6-phenyl-2,2'-bipyridine (HL) has been examined in a variety of solvents. In glacial acetic acid the ligand acts as a substituted 2,2'-bipyridine and reacts to give the complex cation [Ru(tpy)(HL)Cl]+, containing a bidentate N, N'-bonded HL ligand. The structure of this complex has been unambiguously established from its 1H NMR spectrum. In contrast, the use of water as a solvent gives the cyclometallated complex cation [Ru(tpy)(L)]+. In methanol and 1-butanol, mixts. of these two products are formed. The work has been extended to 2,2':6',2''-terpyridyl with aromatic substituents in the 4'-position and the complexes have been characterized by 1H NMR, electronic and FAB mass spectroscopic techniques and also by cyclic voltammetry.
- L3 ANSWER 17 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1993:504903 CAPLUS
- DN 119:104903

- TI Electrochemical and spectroelectrochemical study of cyclometallated platinum derivatives with nitrogen ligands. Electrogeneration of monomeric reduced platinum species
- AU Minghetti, G.; Pilo, M. I.; Sanna, G.; Seeber, R.; Stoccoro, S.; Laschi, F.
- CS Dipartimento di Chimica, Universita di Sassari, Via Vienna 2, Sassari, 07100, Italy
- SO Journal of Organometallic Chemistry (1993), 452(1-2), 257-61 CODEN: JORCAI; ISSN: 0022-328X
- DT Journal
- LA English
- AB The cathodic reduction of [LPtCl] and [LPtL'](BF4) [HL = 6-(1-methylbenzyl)-2,2'-bipyridine and L' = PPh3, pyridine, or MeCN] was studied in MeCN and CH2Cl2 solvents. The main goal was that of defining the nature and reactivity of the corresponding relatively stable 1-electron reduced forms. In particular, X-band EPR spectrometry has allowed one to obtained information about the character (metal- or ligand-based) of the unpaired extra electron of the reduced species.
- L3 ANSWER 18 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1989:595052 CAPLUS
- DN 111:195052
- TI Neutral and cationic orthopalladated (C-N) complexes [C-N = phenylazophenyl, dimethylbenzylamine, 8-methylquinoline, 2-methoxy-3-(N,N-dimethylamino)propyl]
- AU Fornies, Juan; Navarro, Rafael; Sicilia, Violeta
- CS Inst. Cienc. Mater. Aragon, Univ. Zaragonza, Zaragoza, 50009, Spain
- SO Polyhedron (1988), 7(24), 2659-65 CODEN: PLYHDE; ISSN: 0277-5387
- DT Journal
- LA English
- AB By reacting [Pd(C-N)( $\mu$ -Cl)]2 with AgClO4 in NCMe, the corresponding cationic complexes [Pd(C-N)(NCMe)2]ClO4 (C-N = phenylazophenyl-C2,N1; dimethylbenzylamine-C2, N; 8-methylquinoline-C8, N) can be obtained. Solns. containing the cations [Pd(C-N)(S)2]+ are obtained when the reaction is carried out in THF or Me2CO. The treatment of these solns. with bidentate ligands (L-L) [Ph2PCH2PPh2, Ph2PNHPPh2 or Ph2PCH2PPh2CHC(O)Ph] gives the mononuclear [Pd(C-N)(L-L)]ClO4 complexes, with L-L acting as a chelate ligand. On the other hand,  $[Pd(C-N)(\mu-C1)]2$  reacts with L-L (Ph2PCH2PPh2, Ph2PNHPPh2) yielding [Pd(C-N)Cl(L-L)] with L-L acting as monodentate. The reactions between [Pd(C-N)(NCMe)2]ClO4 and 2,2'-bipyrimidyl form mononuclear [Pd(C-N)(bipym)]ClO4 or binuclear  $[Pd2(C-N)2(\mu-bipym)](Cl04)2, [(C-N)Pd(\mu-bipym)Pd(C'-N')](Cl04)2$ derivs. Finally, [Pd(C-N)Cldppm] (dppm = Ph2PCH2PPh2) react with NaH producing the neutral complexes [Pd(C-N)(ddppm)] (ddppm = Ph2PCHPPh2) which by reaction with HCl lead again to the starting materials, [Pd(C-N)Cl(dppm)].
- L3 ANSWER 19 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1985:471468 CAPLUS
- DN 103:71468
- TI Reactions of cyclometalated compounds of palladium(II) with triphenylphosphine
- AU Suarez, A.; Vila, J. M.; Pereira, M. T.; Filgueira, J.; Gayoso, E.; Gayoso, M.
- CS Fac. Quim., Univ. Santiago de Compostela, Spain
- SO Acta Cientifica Compostelana (1983), 20(1-2), 55-64 CODEN: ACCCAW; ISSN: 0567-7378
- DT Journal
- LA Spanish
- AB The reactions of bridged acetato, chloro, and bromo cyclometallated complexes of Pd(II) and benzylidene-2,4,6-trimethylaniline,

4-methylbenzylidene-2,4,6-trimethylaniline and 2,5-dimethylbenzylidene-2,4,6-trimethylaniline with PPh3 in 1:2 and 1:4 molar ratio yield the cyclometallated and non-cyclometallated monomers, resp.

- L3 ANSWER 20 OF 20 CAPLUS COPYRIGHT 2004 ACS on STN
- AN 1983:595194 CAPLUS
- DN 99:195194
- TI Reactivity of cyclometalated complexes of the type M[o-C6H4CH2PR2]2 [M-P bond] (M = Pd, Pt) towards electrophilic compounds
- AU Abicht, H. P.; Issleib, K.
- CS Sekt. Chem., Martin-Luther-Univ. Halle-Wittenberg, Halle/Saale, DDR-4020, Ger. Dem. Rep.
- SO Zeitschrift fuer Anorganische und Allgemeine Chemie (1983), 500, 31-9 CODEN: ZAACAB; ISSN: 0044-2313
- DT Journal
- LA German
- GΙ

The reactivity of cyclometallated complexes I [M = Pd, R = Ph (II), CMe3; M = Pt, R = Ph, Me (III)] with electrophiles Br, HgX2 (X = Br, OAc), and PdC12.2Et2S was examined Whereas the Pd complexes reacted with M-C bond cleavage, the Pt complexes underwent oxidative addition Thus, II and HgBr2 gave 85.7% IV, while III and Br gave 100% V.